

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

F5, INC.,
Petitioner,

v.

SUNSTONE INFORMATION DEFENSE INC.,
Patent Owner.

IPR2022-00483
Patent 10,230,759 B2

Before JAMESON LEE, JON M. JURGOVAN, and AMBER L. HAGY,
Administrative Patent Judges.

JURGOVAN, *Administrative Patent Judge.*

JUDGMENT
Final Written Decision
Granting-in-Part and Denying-in-Part Patent Owner's Non-Contingent
Motion to Amend
35 U.S.C. § 318(a)

I. INTRODUCTION

A. Background and Summary

F5, Inc. (“Petitioner”) filed a Petition requesting *inter partes* review of claims 1–18 and 20–22 (“challenged claims”) of U.S. Patent No. 10,230,759 B2 (Ex. 1001, “the ’759 patent”). Paper 2 (“Pet.”). Sunstone Information Defense Inc. (“Patent Owner”) filed a Preliminary Response. Paper 9 (“Prelim. Resp.”). After considering these papers, we instituted *inter partes* review under 35 U.S.C. § 314(a). Paper 13, 53.

Patent Owner then filed a non-contingent Motion to Amend. Paper 14 (“MTA”). Petitioner filed an Opposition. Paper 23. We issued Preliminary Guidance (“Prelim. Guid.”) on the Motion to Amend. Paper 26. Thereafter, Patent Owner submitted a Reply (Paper 27) in support of the Motion to Amend, and Petitioner presented a Sur-Reply (Paper 28) to the Motion to Amend. A hearing was conducted on May 24, 2023, and a hearing transcript (Paper 36, “Tr.”) is included in the record.

We have jurisdiction under 35 U.S.C. § 6. This Final Written Decision is entered pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. Having reviewed the complete trial record, we grant-in-part the non-contingent Motion to Amend as to cancelling original claims 1–18 and 20–22 of the ’759 patent. As a result, we do not reach the grounds of unpatentability asserted in the Petition against these original claims.

We also deny-in-part the Motion to Amend as to adding proposed substitute claims to the ’759 patent because Patent Owner did not meet its burden to show that the substitute claims have written description support under 35 U.S.C. § 112, first paragraph, in the application that became the ’759 patent and in an earlier-filed priority application. 37 C.F.R.

§§ 42.121(b)(1) and (2). As a result, we do not reach the grounds of unpatentability asserted in the Opposition against the proposed substitute claims.

B. Real Parties in Interest

Petitioner identifies itself and Capital One Financial Corporation as real parties in interest. Pet. 1. Patent Owner identifies only itself as the real party in interest. Paper 5, 1.

C. Related Proceedings

Petitioner and Patent Owner identify the following related litigations involving the '759 patent: *Sunstone Information Defense, Inc. v. F5 Networks, Inc. and Capital One Financial Corporation*, Civil Action No. 3:21-CV-09529 (N.D. Ca.) (“the California litigation”); and *Sunstone Information Defense, Inc. v. International Business Machines Corporation*, Civil Action No. 6:20-CV-01033-ADA (W.D. Tex.). Pet. 1–2; Paper 5, 1.

The following *inter partes* review proceedings involve patents related to the '759 patent: IPR2022-00482 (U.S. Patent No. 9,122,870 B2); IPR2022-00484 (U.S. Patent No. 10,958,682 B2).

D. The '759 Patent (Ex. 1001)

The '759 patent discloses a security processor that uses variations of soft information to specify how hard information managed by a server is to be displayed on a client device. Ex. 1001, 2:54–57. The security processor creates a prediction of how the client device will render the hard information based on the variation of the selected soft information. *Id.* at 2:57–60. The security processor then compares information in a response from the client device with the prediction to determine if a malicious application has

affected or altered communications between the server and client device. *Id.* at 2:60–64.

E. Illustrative Claim

Patent Owner’s non-contingent Motion to Amend proposes to replace challenged claims 1–18 and 20–22 with respective proposed substitute claims 23–43 adding narrowing features. MTA 1, 6–17. Proposed substitute independent claims 23, 30, and 37 correspond to original independent claims 1, 8, and 15. MTA 1. Proposed substitute dependent claims 24–29, 31–36, and 38–43 correspond to original dependent claims 2–7, 9–14, 16–18, and 20–22, and are identical except for their claim dependencies. MTA 4.

Proposed claim 23 is illustrative of the proposed substitute claims presented in the non-contingent Motion to Amend:¹

[23pre] A security processor apparatus comprising a memory including instructions, which when executed, cause the security processor apparatus to:

[23a] receive, from a transaction server, i) hard information to transmit to a client device within at least one message related to a transaction with the client device, the hard information including at least one of a) a data entry field in a webpage for a user of the client device to provide information associated with the transaction and b) text or data for display within the webpage that provides information related to the transaction, and ii) soft information for transmission to the client device within the at least one message, the soft information including a first set of program code for the webpage that specifies

¹ Petitioner’s bracketed captions are provided to identify the claim elements for ease of reference and understanding.

how the hard information is to be displayed within the webpage on the client device;

[23b] create a variation of the soft information configured to prevent a malicious application from determining the transaction with the client device by interacting with the hard information, the variation of the soft information including a second set of program code that specifies how the hard information is to be displayed within the webpage on the client device;

[23c] determine whether the variation of the soft information changes how the hard information is displayed at the client device compared to how the hard information was to be displayed using the soft information;

[23d] responsive to determining the variation of the soft information does not change how the hard information is displayed, replace the first set of program code with the second set of program code for the at least one message and transmit the at least one message to the client device including the hard information and the variation of the soft information;

[23e] **responsive to determining that the variation of the soft information changes how the hard information is displayed at the client device, determine a second variation of the soft information** configured to prevent a malicious application from interacting with the hard information, the second variation of the soft information including a third set of program code that specifies how the hard information is to be displayed within the webpage on the client device;

[23f] determine the second variation of the soft information does not change how the hard information is displayed at the client device compared to how the hard information was to be displayed using the soft information;

[23g] responsive to determining the second variation of the soft information does not change how the hard

information is displayed, replace the first set of program code with the third set of program code for the at least one message and transmit the at least one message to the client device including the hard information and the second variation of the soft information;

[23h] determine a prediction of a response message from the client device based on i) the hard information related to the transaction, ii) how the client device is configured to render the hard information related to the transaction specified by the variation or the second variation of the soft information, and iii) expected response information associated with the hard information related to the transaction that is expected to be provided by a user of the client device;

[23i] receive the response message from the client device;
and

[23j] responsive to information in the response message not matching the prediction, provide an indication there is a malicious application affecting communications between the transaction server and the client device.

MTA 6–8 (the text in bold indicates language we find to lack written description support; and the underlined text indicates the limitations 23h–23j that were added to original claim 1 in forming proposed substitute claim 23.

II. DISCUSSION

In the Motion to Amend, Patent Owner contends that proposed substitute claims 23–43 have written description support under 35 U.S.C. § 112, first paragraph. MTA 5–17. In our Preliminary Guidance, we initially agreed with Patent Owner. Prelim. Guid. 5–8. However, upon further consideration of the record in this case, we determine in this Final

Decision that the proposed substitute claims do not have written description support under § 112.²

Consequently, the non-contingent Motion to Amend is granted-in-part to cancel original claims 1–18 and 20–22, and denied-in-part to add proposed claims 23–43, which are not substituted into the ’759 patent for the original claims. As a result, only claim 19 (which has not been challenged in this proceeding) remains in the ’759 patent.

We explain the reasons for our determination below.

A. Principles of Law

According to 35 U.S.C. § 112(a),

[t]he specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person of ordinary skill in the art to which it pertains, or with which it is most nearly connected, to make and use the same.

(emphasis added). The written description of the invention must “clearly allow persons of ordinary skill in the art to recognize that [the inventor] invented what is claimed.” *Ariad Pharmaceuticals, Inc. v. Eli Lilly and Co.*,

² The Preliminary Guidance set forth “initial, preliminary, non-binding views” on the patentability of the proposed substitute claims. *See* Prelim. Guid. 3. Although we find the proposed substitute claims do not meet the written description requirement of § 112, first paragraph, we find that Patent Owner did meet other requirements for a Motion to Amend (i.e., reasonable number of substitute claims, responsive to instituted grounds of unpatentability, and no enlargement of claim scope). Petitioner does not allege that the Motion to Amend is deficient with respect to these requirements. Because the proposed substitute claims lack written description support, we do not reach patentability of the proposed substitute claims over prior art.

598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc) (citing *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1562–63 (Fed. Cir. 1991); *In re Gosteli*, 872 F.2d 1008, 1012 (Fed. Cir. 1989)). The “description need not recite the claimed invention *in haec verba* but must do more than merely disclose that which would render the claimed invention obvious.” *ICU Med., Inc. v. Alaris Med. Sys., Inc.*, 558 F.3d 1368, 1377 (Fed. Cir. 2009) (emphasis added). “[A] description which renders obvious a claimed invention is not sufficient to satisfy the written description requirement of that invention.” *Regents of the Univ. of Cal. v. Eli Lilly & Co.*, 119 F.3d 1559, 1567 (Fed. Cir. 1997). “The test for whether an applicant’s specification contains adequate written description for the claimed subject matter is whether applicant conveyed with reasonable clarity to those skilled in the art that, as of the filing date sought, applicant was in possession of the invention.” *Knowles Electronics LLC v. Cirrus Logic, Inc.*, 883 F.3d 1358, 1367–68 (Fed. Cir. 2018) (internal citation omitted). “It is not sufficient for purposes of the written description requirement of § 112 that the disclosure, when combined with the knowledge in the art, would lead one to speculate as to the modifications that the inventor might have envisioned, but failed to disclose.” *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1572 (Fed. Cir. 1997).

A patent owner is permitted to file a motion to amend the patent during an *inter partes* review. 35 U.S.C. § 316(d)(1). A motion to amend may be denied where the amendment seeks to “enlarge the scope of the claims of the patent or introduce new matter.” 35 U.S.C. § 316(d)(3); 37 C.F.R. § 42.121(a)(2)(ii). A motion to amend must set forth:

- (1) The support in the original disclosure of the patent for each claim that is added or amended; and

(2) The support in an earlier-filed disclosure for each claim for which benefit of the filing date of the earlier filed disclosure is sought.

37 C.F.R. §§ 42.121(b)(1) and (2). The patent owner bears the burden to show, by a preponderance of the evidence, that a motion to amend complies with these requirements. 37 C.F.R. § 42.121(d)(1). “[T]he motion [to amend] must set forth written description support for each proposed substitute claim as a whole, and not just the features added by the amendment.” *Lectrosonics, Inc. v. Zaxcom, Inc.*, IPR2018-01129, Paper 15, 8 (PTAB Feb. 25, 2019) (precedential).

B. Lack of Written Description Support

Patent Owner contends that the proposed substitute claims in the non-contingent Motion to Amend have written description support under § 112, first paragraph, in Application No. 13/623,556 (“the ’556 application”) filed on September 20, 2012, now U. S. Patent No. 9,122,870. MTA 5–16; Ex. 2007 ¶ 51. The ’759 patent issued from Application No. 14/841,083 (“the ’083 application”), filed August 31, 2015, which is a continuation of the ’556 application.

Petitioner contends that “Patent Owner did not meet its burden to ‘set forth written description support in the originally filed disclosure of the subject patent for each proposed substitute claim.’” (Paper 23) Opp. 1 (citing *Lectrosonics Inc. v. Zaxcom, Inc.*, IPR2018-01129, Paper 33, 7 (PTAB Feb. 25, 2019); 37 C.F.R. 42.121(b)(1) and (2)). Specifically, Petitioner argues that the claims lack support for the limitation reciting “responsive to determining that the variation of the soft information changes how the hard information is displayed at the client device, determine a

second variation of the soft information” in proposed claim 23, and in similar limitations of independent proposed claims 30 and 37. *Id.* at 3 (emphasis omitted); Sur-Reply 4–8. We agree with Petitioner on this argument.

Patent Owner made no effort to show that the disclosure of the application that issued as the ’759 patent, i.e., the ’083 application (Ex. 1007, 443–457, 461–503), provides written description support for proposed substitute claims 23–43, as required by 37 C.F.R. § 42.121(b)(1). Instead, Patent Owner argues that the priority application, the ’556 application, provides support for the claim language. Reply 2–3. Patent Owner suggests that the reason it limited its Motion to Amend table (MTA 5–16) to show written description support of claim limitations only from the ’556 application, and not from the ’083 application, was due to the length of the claims and the page limits for a motion to amend. Reply 2. However, Patent Owner did not request additional pages for its Motion to Amend from the Board. Even without additional pages, we do not see why it would have been difficult to add an additional column to Patent Owner’s Motion to Amend table to cover disclosures in the ’083 application as well as the ’556 application. Patent Owner may have assumed that the disclosures of the ’083 application and the ’556 application (Ex. 1012) are the same, but Patent Owner provided no evidence, such as a declaration or even a representation on the record, to establish this as fact. Patent Owner also has not, in its Motion to Amend, alleged that the disclosure of the ’083 application is the same as the disclosure of the ’556 application, or submitted a copy of that the ’083 application as first filed in the Office. A brief comparison of the ’083 application and the publication of the ’556 application shows that their

disclosures are not identical. *Compare* Ex. 1007, 461, 503 *with* Ex. 1012, codes (54, 57). Patent Owner's lack of a showing of written description support in the '083 application is one reason why we deny the non-contingent MTA.

In addition, contrary to Patent Owner's assertion, we determine that the '556 application does not provide written description support for the proposed substitute claims. For limitations 23e, 30e, and 37e of respective independent proposed claims 23, 30, and 37, Patent Owner points to paragraphs 11, 37, 60, 78, 83–85, 90, 109–113, 119–130, 150, and Figure 11 of the '556 application as providing written description support. MTA 6–7, 10, 14–15; Reply 2–3. Reviewing these paragraphs, however, we find no description of the subject matter recited in limitation 23e, which recites “responsive to determining that the [first] variation of the soft information change how the hard information is displayed at the client device, determine a second variation of the soft information.” Nor do we find in those passages written description of the subject matter recited in the similar language of limitations 30e and 37e.

Specifically, paragraphs 11 and 37 of the '556 application address prediction of the response message expected from the client device (similar to limitations 23h–23j, 30h–30j, and 37h–37j, which were added in the MTA to the original claims of the '759 patent). Paragraphs 60, 78, 83, and 84 describe specific ways to vary soft messaging to establish secondary communications between a server and a client device to detect the presence of a malicious application. Paragraph 85 describes *a priori* recording of soft information variations to create large sets of composite (hard and soft) messages to be transmitted together. Paragraph 85 also states that,

alternatively, the hard and soft messages may be transmitted separately. Paragraph 90 mentions use of “spaghetti” code and soft formatting to make it difficult for malicious applications to alter, replace, or counterfeit in real time. Paragraphs 109 to 113 mention various ways to vary soft information and soft messaging, such as varying or selecting different characters sets, font type, color, or weight, and point sizes from session to session, and predicting the response from the client device to compare with the actual response. Paragraphs 119 to 125 and Figure 11 address soft messaging using un-rendered page elements, and paragraphs 126 to 130 describe soft messaging using graphical elements. Paragraph 150 discusses identifying compatible soft information and selecting a variation of soft information to prevent malicious applications from reverse engineering the soft messaging used to validate communications.

None of these disclosures describe the “trial and error” or “testing” approach of limitations 23e, 30e, and 37e in which, responsive to determining that a first variation of the soft information changes how the hard information is displayed at the client device, the security processor creates a second variation of soft information (which is included in the message to the client device if it does not vary how the hard information is displayed—see limitations 23f–23g, 30f–30g, and 37f–37g) to prevent a malicious application from interacting with the hard information. Accordingly, Patent Owner fails to meet its burden to show that limitations 23e, 30e, and 37e of independent proposed substitute claims 23, 30, and 37, as presented in the Motion to Amend, have written description support in the ’556 application, as required under 37 C.F.R. § 42.121(b)(2).

By virtue of their dependency from independent proposed substitute claims 23, 30, and 37, proposed substitute claims 24–29, 31–36, and 38–43 have not been shown to have adequate written description support in either the '083 application or the '556 application.

III. CONCLUSION

For the foregoing reasons, we grant Patent Owner's non-contingent Motion to Amend to cancel original claims 1–18 and 20–22 of the '759 patent, and we deny Patent Owner's request to add proposed substitute claims 23–43 to the '759 patent.

IV. ORDER

Accordingly, it is:

ORDERED that Patent Owner's Motion to Amend is *granted* as to the non-contingent request to cancel original claims 1–18 and 20–22 of the '759 patent;

FURTHER ORDERED that Patent Owner's Motion to Amend is *denied* as to the request to add proposed substitute claims 23–43 to the '759 patent; and

FURTHER ORDERED that, because this is a Final Written Decision, any party seeking judicial review must comply with the notice and service requirements of 37 C.F.R. § 90.2.³

³ Should Patent Owner wish to pursue amendment of the challenged claims in a reissue or reexamination proceeding subsequent to the issuance of this Decision, we draw Patent Owner's attention to the April 2019 Notice Regarding Options for Amendments by Patent Owner Through Reissue or

In summary:

Claim(s)	35 U.S.C. §	Reference(s)/Basis	Claim(s) Shown Unpatentable	Claim(s) Not shown Unpatentable
1–10, 13– 18, 20–22	103	Boodaei, Pletter		
11, 12	103	Boodaei, Pletter, Chen		
Overall Outcome⁴				

Motion to Amend Outcome	Claim(s)
Original Claims Cancelled by Amendment	1–18, 20–22
Substitute Claims Proposed in the Amendment	23–43
Substitute Claims: Motion to Amend Granted	
Substitute Claims: Motion to Amend Denied	23–43
Substitute Claims: Not Reached	

Reexamination During a Pending AIA Trial Proceeding. *See* 84 Fed. Reg. 16,654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the challenged patent, we remind Patent Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. *See* 37 C.F.R. § 42.8(a)(3), (b)(2).

⁴ For the reasons stated herein, because Patent Owner has cancelled by amendment all challenged claims, we do not reach the alleged unpatentability of the challenged claims.

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